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05/06/2004

Mark Edwin Forry

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EXAMINER

CORDRAY, DENNIS R

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.



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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/840,042
Filing Date: May 06, 2004
Appellant(s): FORRY ET AL.

C. Brant Cook
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 7/20/2010 appealing from the Office action mailed 3/5/2010.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The following are the related appeals, interferences, and judicial proceedings known to the examiner which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal:

A related appeal has been filed in application No. 11/105998, which is a CIP of the instant application.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

Claims 1, 5, 7 and 12-15 are pending and have been finally rejected.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being

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maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

2004/0099388	Chen et al	05-2004
4,507,173	Klowak et al	03-1985
6,740,373	Swoboda et al	05-2004

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1, 5, 7 and 12-15 are rejected under 35 U.S.C. 103(a) as unpatentable over Chen et al (US 2004/0099388) in view of Klowak et al (4507173) and as evidenced by Swoboda et al (6740373).

Claims 1, 5, 7, 12, 13 and 15: Chen et al ('388) discloses tissue products in roll form (Abs; p 1, par 1; p 2, par 23; p 4, par 39; p 6, par 74; p 18, par 175) comprising a wet laid fibrous structure (p 8, par 85; p 17, par 170) having a patterned three dimensional configuration of raised web portions molded into the web and projecting out of the surface (p 2, pars 16, 20 and 23). The molded portions can be made by embossing (p 6, par 67; p 9, par 97) or, alternatively, the web can be embossed

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separately from the molding process (p 6, par 68; p 17, par 170; p 18, pars 177 and 178). In some embodiments (see Figs 7A and 7B), the molded pattern comprises raised areas of low relative density and compressed areas of high relative density, thus is a differential density structure.

The web inherently has at least first and second surfaces or, at least, such surfaces would have been obvious to one of ordinary skill in the art.

In some embodiments, the raised portions have a height above the planar surface of the web of about 1 mm, or 1000 μm , which reads on values greater than 1000 μm (p 9, par 96). Figure 4 shows an embodiment where both sides of the web are molded to approximately the same deformation height.

The web is covered by an adhesive material, applied to the web before, during or after the web is molded, (p 16, par 162). Chen et al ('388) discloses that the adhesive can be a latex, such as vinyl acetate copolymers, ethylene-vinyl acetate, styrene-butadiene, acrylic emulsions (p 13, par 140).

Examples of the disclosed molded pattern (see Fig 5) reveal patterns that are not nesting, thus the average effective sheet caliper of the molded product is greater than that of an unmolded product.

Chen et al does not disclose the glass transition temperature (T_g) of the latex binder. The disclosed species are substantially the same as commercially available conventional latexes that have T_g 's in the claimed range (see Swoboda et al, 6740373, col 27, Table 5), thus will have a T_g in the claimed range or, at least, it would have been obvious to one of ordinary skill in the art to obtain the claimed T_g .

Chen et al does not disclose that the latex is substantially present in the high density regions of the fibrous structure.

Klowak et al discloses a fibrous tissue structure comprising a patterned web comprising a molded pattern of compressed areas and raised areas and a binding material applied to the surface thereof. The pressure applied by the raised surfaces of the impression roller of the molding apparatus causes the binding liquid to be dispersed deeply into the compressed areas (areas of higher density) and highly concentrated therein to provide strength, while the uncompressed areas receive a light coating of very little binder that provides resistance to linting, a soft bulky feel and excellent absorbency (Abs; col 1, line 61 to col 2, line 33; Fig. 5).

The art of Chen et al ('388), Klowak et al and the instant invention is analogous as pertaining to tissue products comprising three dimensional molded patterns and a binding material. It would have been obvious to one of ordinary skill in the art to concentrate the binder to be substantially present (more than 50%) in the compressed areas of higher density and more lightly present in the raised areas of the product of Chen et al in view of Klowak et al to provide strength in the compressed areas while providing resistance to linting, a soft bulky feel and excellent absorbency to the raised areas.

The structure of the sheet so made is substantially the same as the claimed structure, thus will have the claimed properties because, where the claimed and prior art apparatus or product are identical or substantially identical in structure or composition, a *prima facie* case of either anticipation or obviousness has been established. *In re Best*,

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562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). In other words, when the structure recited in the reference is substantially identical to that of the claims, the claimed properties or functions are presumed to be inherent or at least obvious.

Claim 14: Chen et al discloses products having a caliper of 0.027 to 0.30 in., or 27 to 30 mils (Figure 15).

(10) Response to Argument

Appellant argues that Chen et al in view of Klowak et al as evidenced by Swoboda et al does not teach “a sanitary tissue product comprising a patterned wet laid differential density fibrous structure comprising latex on the surface of the fibrous structure wherein more than 50% of the latex is present on high density regions of the differential density fibrous structure.” Appellant further argues that Klowak et al teaches that its binding liquid is absorbed “substantially through the web in compressed areas” and is “dispersed deeply into the compressed areas of the web.” Appellant argues that Klowak fails to teach that 50% or more of its binding liquid is on the surface of the high density regions of its fibrous structure as is claimed in claim 1. Appellant also argues that the present invention has overcome a long, unmet need.

In a second argument, Appellant notes that Klowak et al has been in the art for over 25 years and questions why the teachings of Klowak et al and Chen et al haven't been previously combined to arrive at the claimed invention.

Chen et al discloses tissue products (Abs; p 1, par 1; p 2, par 23; p 6, par 74; p 18, par 175) comprising a wet laid fibrous structure (p 8, par 85; p 17, par 170) having a

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patterned three dimensional configuration of raised web portions molded into the web and projecting out of the surface (p 2, pars 16, 20 and 23). The molded portions can be made by embossing (p 6, par 67; p 9, par 97) or, alternatively, the web can be embossed separately from the molding process (p 6, par 68; p 17, par 170; p 18, pars 177 and 178). In some embodiments (see Figs 7A and 7B), the molded pattern comprises raised areas of low relative density and compressed areas of high relative density, thus is a differential density structure. A sanitary tissue product is a typical and well known tissue product (see Chen et al, pars 175, 177 and 178).

The claims require latex to be present on at least one of the defined first and second surfaces, but do not require more than 50% of the total latex to be present on said defined first or second surface of the high density regions. While the instant Specification states that “more than 50% and/or more than 60% and/or more than 70% of the total latex present on the surface of the patterned fibrous structure is present on high density regions” (p 9, lines 14-16), limitations appearing in the specification but not recited in the claim are not read into the claim.

At least some of the binder of Klowak et al is present on the outer surface of the web since it was applied thereto. Regarding the phrase “wherein more than 50% of the total latex present is present on regions of high density,” Klowak et al teaches that the binding liquid is dispersed deeply into the compressed areas (areas of higher density) and highly concentrated therein to provide strength, while the uncompressed areas receive a light coating of very little binder that provides resistance to linting, a soft bulky feel and excellent absorbency (Abs; col 1, line 61 to col 2, line 33; Fig. 5). One of

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ordinary skill in the art would expect a soft bulky feel to be provided by noncompressed regions of low density as opposed to compressed regions of high density and would have found it obvious to combine the teachings of Chen et al and Klowak et al to apply at least 50% of the latex of Chen et al to high density regions to provide strength and to have only a light coating of very little binder in the regions of lower density to provide resistance to linting, a soft bulky feel and excellent absorbency.

Even though the binder of Klowak et al is absorbed substantially through the web in the compressed areas (regions of high density) or dispersed deeply into the compressed areas, the fibrous web is a porous structure comprising randomly oriented fibers that each present a surface. Said binder is present on the fibers of the web, thus is present on regions of high density, whether or not the fibers comprising the binder are on the outer surface of the web..

Regarding the invention overcoming a long, unmet need, Appellant has not shown that others of ordinary skill in the art were working on the problem and if so, for how long. In addition, there is no evidence that if persons skilled in the art who were presumably working on the problem knew of the teachings of the above cited references, they would still be unable to solve the problem. See MPEP § 716.04.

Claim 7: Regarding the additional limitations of Claim 7, Chen et al discloses that the adhesive can be a latex, such as vinyl acetate copolymers, ethylene-vinyl acetate, styrene-butadiene, acrylic emulsions (p 13, par 140).

Claims 12, 13 and 15: Regarding the additional limitations of Claims 12, 13 and 15, one of ordinary skill in the art would have found the tissue product of Chen et al

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modified in view of Klowak et al as described in the rejections to be substantially the same as the claimed structure, and would have further found it obvious to obtain the claimed properties because, where the claimed and prior art apparatus or product are identical or substantially identical in structure or composition, a *prima facie* case of either anticipation or obviousness has been established. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). In other words, when the structure recited in the reference is substantially identical to that of the claims, the claimed properties or functions are presumed to be inherent or at least obvious.

Claim 14: Regarding the additional limitations of Claim 14, Chen et al discloses tissue products having a caliper of 0.027 to 0.30 in., or 27 to 30 mils (Figure 15).

(11) Related Proceeding(s) Appendix

A related appeal in application No. 11/105998 has been identified in section 2. No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Dennis Cordray/
Examiner, Art Unit 1791

Conferees:

/Matthew J. Daniels/
Supervisory Patent Examiner, Art Unit 1791

/Christopher A. Fiorilla/
Chris Fiorilla
Supervisory Patent Examiner, Art Unit 1700

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